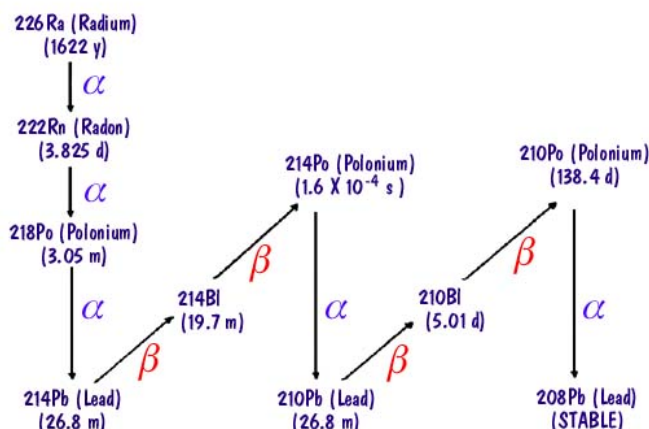


C-2.8 Analyze a decay series chart to determine the products of successive nuclear reactions and write nuclear equations for disintegration of specified nuclides  
 Revised Taxonomy Level 4 Analyze conceptual knowledge

Students did not address this concept in physical science

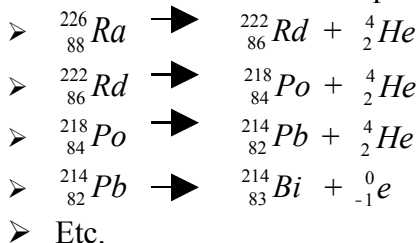
It is essential for students to

- ❖ Interpret a radioactive decay series such as the one below



**Radium-226 (Uranium-238) decay series with half-lives.**

- ❖ Write and balance nuclear equations for each of the steps in a decay series



### Assessment

The revised taxonomy verb for this indicator is analyze which means to “break material into its constituent parts and determine how the parts relate to one another and to an overall structure or purpose”. In this case, students should be able to look at the decay series diagram and determine the particles which are produced by each successive step. Because the indicator is written as conceptual knowledge, assessments should require that students understand the “interrelationships among the basic elements within a larger structure that enable them to function together.” In this case, assessments must show that students understand the reasons for the values of mass number and atomic number for each of the substances and particles.